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Cows or Condos?



LEVEL: Grades 9-12
SUBJECTS: Social Studies (American History, Geography, Government, Debate, Economics, Philosophy), Environmental Studies

SKILLS: Analyzing, collaborating, debating, discussing, evaluating, explaining, identifying, public speaking, reading, researching, sequencing, solving problems, taking responsibility, valuing

MATERIALS

Writing materials, overhead projector, transparencies and pen, photocopies of the attached **Cows or Condos?** case study and **Cows or Condos? Questions. Optional:** photocopies of attached **Decision Matrix** and **The California Land Conservation (Williamson) Act**, slides and/or photographs of an agricultural area under pressure of urbanization; and Internet access to *America's Heartland* Episodes.

VOCABULARY

problem-solving model, urban fringe, urbanization, urban sprawl

RELATED LESSON

Amazing Grazing

SUPPORTING INFORMATION

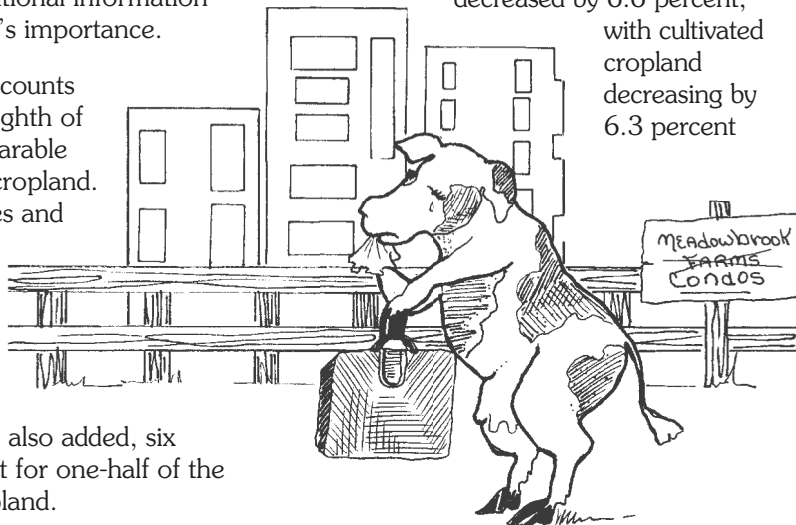
The United States is the most productive agricultural country in the world. Each U.S. farmer produces food, fiber and renewable fuel for 143 people. Agriculture is everywhere and an important part of daily life. See the Supporting Information in the FLP lessons "It All Starts with A" and "Step by Step" for additional information about agriculture's importance.

U.S. cropland accounts for almost one-eighth of the world's total arable and permanent cropland. The United States and India account for almost one-fourth of all arable cropland. When China, Russia, Brazil and Australia are also added, six countries account for one-half of the world's best cropland.

During the past 25 years, urbanization has annually consumed about 1.68 million acres or 676,113 hectares (about 2,525 square miles). That's a size larger than Delaware (1,954 square miles) every year and more than Georgia (57,906 square miles and ranked 24th nationally) since 1982.

America's farmland is ticking away. More than 3.7 acres of America's pastureland and cropland turn to developed land every minute between 1992 and 2003. That pace of development clocks out at 1.96 million acres a year. By percentage, the most significant loss has been to pastureland, but by acreage, the bigger loss has been to cropland. In that time, the nation has lost 1.22 million acres of cropland a year or about 2.3 acres a minute and 745,500 acres of pastureland a year or about 1.4 acres a minute.

Between 1992 and 2003, the amount of land developed in the United States increased by 25 percent, averaging an increase of almost 2.3 percent a year. During the same period, pastureland decreased by 6.6 percent, with cultivated cropland decreasing by 6.3 percent



BRIEF DESCRIPTION

After reading a case study, students use a problem-solving model to understand the complex issues of urbanization of agricultural land. Then they analyze similar situations in their areas and pose possible solutions.

OBJECTIVES

The student will:

- explain the pressure to urbanize agricultural land on the fringes of American cities and analyze the reasons for these pressures;
- identify and debate the issues associated with the urbanization of agricultural land in Chino Valley;
- give examples of the importance of agricultural land;
- analyze alternative approaches to reducing the rate of urbanization of agricultural land using a problem-solving model; and
- compose arguments in support of one or more alternatives.

ESTIMATED TEACHING TIME

Five sessions: One hour each.

and non-cultivated cropland increasing by a record 23.4 percent. Twenty-five years ago, the United States had about 80 percent more pastureland than developed land; today, the two are about equal. The numbers and percentages indicate that cows and crops are being moved off while construction and condos are moved on.

The 2003 National Resources Inventory (NRI), a survey of national land data compiled by the Natural Resources Conservation Services of the United States Department of Agriculture, shows that 15 states have seen developed lands increase by 30 percent or more between the 1992 and 2003 surveys. Those states and the percentages of increase in developed lands (in order) are: George (47%), West Virginia (45%), South Carolina (42%), Alabama (41%), Arizona and North Carolina (39% each), Maine (35%), Florida and Nevada (34% each), Tennessee and Kentucky (33% each), Mississippi (32%), and Delaware (31%). Large parcels of land in well-populated states also continue to turn from rural to developed. For example, in the same 11-year period of the NRI surveys, developed lands in Texas increased 26 percent, in Pennsylvania by 24 percent, and in New York and California by 21 percent each.

Highlights from the 2003 NRI Survey show that during the two decades between 1982 and 2003, non-Federal acreage devoted to grazing uses -- rangeland, pastureland, and grazed forest land -- declined from 611 million acres to 576 million acres, a decrease of over 5 percent. During the six-year period between 1997 and 2003, the net decline in grazing land acreage was about 1 percent or a little over 1 million acres per year.

The NRI surveys indicate that the nation's acres of rangeland and forest land have remained fairly constant, with rangeland decreasing by less than one percent in the 11-year period and forest land increasing by one percent.

Farm and ranch land is desirable for building because it tends to be flat, well drained and affordable. Those lands located near growing cities become as valuable or even more so for development use than for farm use. But the conditions of these lands influences the production and delivery of the food, fiber and environment that are critical to not only a nation's prosperity, but also its survival.

Most people who are unfamiliar with land use issues may think of urbanization as the gradual expansion of established urban centers. This kind of growth is only

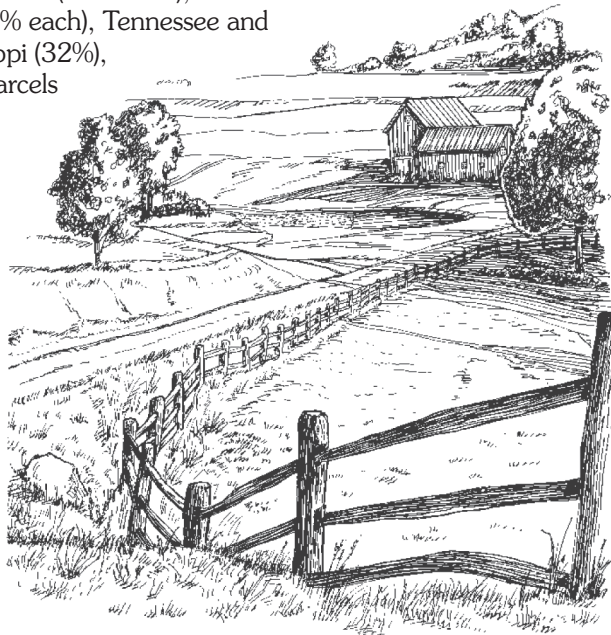
one kind of urbanization that is threatening agricultural production. Leapfrog development, low-density ranchette-style development in rural areas, development of new towns, augmentation of highway networks, the ruralization of recreation facilities (such as golf courses), and other similar developments also put pressure on the capacity of land to support productive and profitable agriculture.

Productive farms, ranches, nurseries, vineyards, and greenhouses (production agriculture) need support services, inputs and markets. Consider this an agricultural infrastructure. The businesses that provide that infrastructure need to serve enough production businesses to remain profitable. The production businesses are their customer base. In other words, a

critical mass of production businesses is needed in a given geographical area to maintain an agricultural infrastructure. For example, 10 dairy farms may be needed to provide enough business to support the company that trucks the milk from the farm to the processing plant that makes cheese. Four trucking companies may be needed to keep that cheese plant in business. Each trucking company has its own client base. Those farms along with several horse farms can provide enough business to keep the large-animal veterinarian in business. Those same farms provided adequate business

to keep a thriving agricultural machinery dealership and repair business in operation along with a fertilizer distributor, seed company, and dairy supply business. This is important because efficiency is essential in agriculture. Any loss in efficiencies can spell disaster for a producer. If the critical mass of production businesses is not maintained in a geographic area the infrastructure businesses leave. The producers left will have more difficulty meeting their needs, waste time, and their efficiency will decline. It is not enough to simply keep land available for agricultural production, it must be economically feasible to operate each agricultural business. The new rural residents also need to support those activities that farms carry out such as spreading manure, spraying crops, migrant worker camps, large equipment on the highway, equipment use late at night or early in the morning, and workers to pick crops.

Conventional wisdom asserts that farmers want to preserve their land, but development pressures often force or entice them to sell. Naturally, the issues

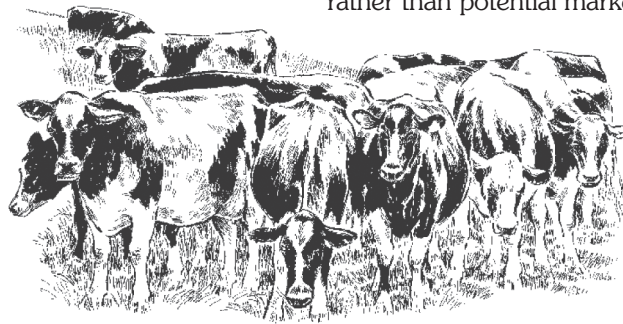


are considerably more complex than that. Urban pressures on nearby agricultural land may drive up land values, tempting farmers to sell. Moreover, local governments tend to tax land at its “potential market value.” Therefore, agricultural land may be taxed as if it contained houses or factories. Such taxation may drastically increase a farmer’s overhead.

It is generally thought that land development generates enough tax income to support the newcomers. The reality is much different. Land development and the additional people it brings into an area will require local governments to raise taxes. Their impact to a city, town or community can create demands on infrastructure that exceed the economic or tax base benefits they contribute. Newcomers may not entirely pay for additional services - roads, sewers, fire and police protection, schools, and more - to meet their demands. This is particularly true for lowdensity, leapfrog, and ranchette-style development. Because these kind of developments tend to make inefficient use of infrastructure and municipal services, it puts pressure on local governments to assess all land at the highest possible rate for property taxation. Taxing agencies find it politically more advantageous to tax farm properties, making it less profitable to farm and hastening the conversion of that land to urban uses.

The problem of urbanization focuses on the conflict between the proliferation of ranchette-style and leapfrog developments, recreation facilities, new highways, and new towns and the need for agricultural land. If, as a society, we believe that open land should be preserved around our cities, should that land be used for agriculture? If not for agriculture, then for what? If for agriculture, what will ensure that the land will be farmed in the future as houses and development surround the farm? What factors affect the farmer’s decision to farm or not to farm? Should government take special measures to assure that this open land is preserved while, at the same time, protecting farmers’ property rights?

History has shown that once conversion of agricultural land begins, a kind of domino effect occurs. While early arrivals in newly built homes rejoice at living in “the country,” the occasional smells and dust of an agricultural operation have sent some of the new owners to the local officials including planning agencies, health department, and police departments. Planners and local politicians find themselves under increasing pressure to declare agricultural land use nonconforming. This ultimately forces the development of the land, further reducing the land for farms.



In 1965, the California Legislature passed the California Land Conservation (Williamson) Act. The Williamson Act has three fundamental purposes: agricultural land preservation, open space preservation, and efficient urban growth patterns (discourage discontinuous urban development patterns). It creates an arrangement whereby private landowners voluntarily restrict their land to agriculture and compatible open-space uses under 10-year, rolling term contracts with counties and cities. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use rather than potential market value.

The Williamson Act does not specify minimum parcel sizes for contract enrollment, but it stipulates that agricultural preserves (areas set aside by local governments for Williamson Act participation) should generally be at least 100 acres in size and that individual contracted parcels should be large enough to support agricultural production. Land enrolled under Williamson Act contract is required to be restricted in its use by zoning. As a result, the Williamson Act and zoning operate in conjunction to protect these lands. More than 40 years after its passage, the goals of the Williamson Act have increased in importance, and enrollment in the program remains strong.

Zoning laws are another means of controlling urban sprawl. By enacting zoning laws, many counties across the United States have established minimal parcel sizes. For instance, in California the Subdivision Map Act provides landowners the opportunity to subdivide property into parcels of 10 acres for prime land [the best soil quality] and 40 acres for nonprime land [lower soil quality] unless counties or cities have a higher minimum parcel size under their zoning ordinance. Zoning could exacerbate the problem of loss of agricultural land because it reduces the density of development by mandating the minimum lot size for building, e.g., one acre, five acres, 10 acres, 20 acres, and so on. If 500 people want to move to a rural area on one-acre lots, that means 500 acres are taken out of production. If they want five-acre lots, 2,500 acres are taken out of production; 20-acre lots mean 10,000 acres; and so on.

In other parts of the country, legislators have passed “right to farm” laws. This legislation applies only to farmers who have operated in an area for a minimum of three years. If their agricultural operations are safe and do not threaten the health of adjacent homeowners, and the farmer is engaged in standard practices considered normal by agriculture, “right to farm” laws protect these farmers from the actions of homeowners and government agencies. The farmer can

be sued, but the issue is resolved by a designated expert who establishes these practices or court of law. While it minimizes nuisance lawsuits, these laws are under serious political and legal pressure and may not remain effective deterrents.

Another solution to the conflict between agricultural needs and urbanization is the buffer zone. A buffer zone separates new developments and adjacent agricultural properties. Legislators have allotted public funds for these conservation easements. In other cases, they have required developers to create such easements along the perimeters of their development.

Water wars are emerging as key land use controversies. The value of water to urban life and agriculture's survival cannot be understated. Governmental coordination becomes critical to balance the human need for water in our densely populated cities with the necessity for water to keep a healthy harvest on the farm that eventually feeds the urban masses. A case example is on Florida's Gulf Coast, when the intensity of water demands in two high-growth counties during the 1990s threatened the water supply in a third county, establishing a water management entity became critical. The three counties include Pinellas County, Florida's most densely populated county and home to numerous high-rise condominiums occupied mostly by newcomers; Hillsborough County, a high residential and commercial growth area including Tampa; and Pasco County, an agricultural county threatened by urban sprawl. The growth demands in Pinellas and Hillsborough counties created a significantly higher demand for water than the two counties could provide from their own natural sources. With the saltwater of the Gulf so near, the excessive draw down or demand on the aquifer led to the salinization of some fresh water sources in the two high-growth counties.

After the two high-demand counties began drawing more groundwater from adjacent Pasco County than was considered equitable, residents in Pasco County complained. Many Pasco County residents saw how pumping available water away from their land to supply the other two counties could ravage farmlands and residential properties, kill trees, and diminish creeks and swamps. Working through a water management district and now using a regional water partnership, supplies are being controlled, more water is being desalinated, and agriculture continues in Pasco County.

The greatest challenge seems to be changing the perception that agricultural and urban uses cannot coexist. Virtually every modern society outside the United States has shown that the two can be complementary. For example, throughout the centuries in Germany, farmers have continued to farm near major cities. People seem to appreciate the proximity of the farmland to urban areas. Perhaps it is possible to share the value and

importance of agricultural land with Americans. (Note: The farms in the European Union are still subsidized for the commodities they produce. The farmers are very restricted in operating their farms. Examples include getting permission to build a new fence or a permit to spread manure.)

Appreciating agricultural land will be a major task. Americans often take farming and farmlands for granted. Allowing the conversion of some of the best soils in the country to concrete or asphalt is evidence. We may eventually trade long-term survival for short-term economic gain. The ***Cows or Condos?*** case study gives students an opportunity to confront these issues in California and then investigate the policies in their local area and state.

(Note: One acre equals 0.404694 hectare, one hectare equals 2.4710 acres, and one square mile equals 640 acres and 259 hectares.)

GETTING STARTED

Photocopy the ***Cows or Condos?*** case study and ***Cows or Condos? Questions*** for pairs or individual students (depending on the amount of work to be done outside of class). **Optional:** photocopies of ***Decision Matrix*** sheet and ***The California Land Conservation (Williamson) Act***; gather slides and/or photographs of an agricultural area under the pressure of urbanization.

Note: This lesson is a case study to help students understand the issues surrounding land use. You may use the attached ***Cows or Condos?*** case study or a land use issue in your local area, county or state.

PROCEDURE

SESSION ONE

1. Begin this lesson by asking:
 - Why do we put land into national parks, state parks, and local parks?
 - Why do we need to preserve lands?
 - How do agricultural lands benefit the public?
2. Divide students into small groups and have them draw a map and describe the place they would like to live. Have them locate the place on their map that delineates cities; urban, suburban, and rural areas; natural areas; agricultural lands; and more. Have them consider the services they would like to have available - a grocery store, a fast-food restaurant, a shopping mall, schools, a hospital, and more - and place them on the map. Be sure they include the size of lots for homes. For homework have students call a local tax appraisal office or local realtor to ascertain current estimates of land values. Ask them to assign a dollar

value per acre in the various areas. (An acre is roughly the size of a football field.)

3. Have students imagine that they are farmers just beyond the edge of the city. Ask:
 - How might there be a conflict between your dream home and your farm?
 - What might happen to your land over the next several years?
 - What might cause these changes? What are the trade-offs? Why?
 - Which land is worth the most on your map? How will this affect future development and the agricultural land? What other problems might develop?
4. Show *America's Heartland* episode #209, segments **Preserving Precious Resources** and **The Middle Mountains** at http://www.americasheartland.org/episodes/episode_209/index.htm; episode #301, segments **A Tale of Two Ranches** and **Selling the Farm** at http://www.americasheartland.org/episodes/episode_301/index.htm; and episode #406 segment **A Life Choice** at http://www.americasheartland.org/episodes/episode_406/index.htm to depict agricultural land that is under pressure of urbanization, the various programs and choices agriculturists have made to keep their land in production and the choices agriculturists made to sell the land for some form of development.
5. Distribute copies of the **Cows or Condos?** case study for class or home reading. Have students answer the **Cows or Condos? Questions** in preparation for discussion. This case study describes the development of the dairy industry in Chino, California. You may want to make copies of the **California Land Conservation (Williamson) Act** available to students as additional information.

SESSION TWO

1. Divide students into six groups. Assign one of the following roles to each group.
 - Nonfarming residents of Chino who favor urbanization
 - Nonfarming residents of Chino who oppose urbanization
 - Dairy farmers who oppose urbanization and want protection against regulations that could force them out
 - Los Angeles residents who want to move to the fringes and favor development
 - Developers who favor developing land around Chino

- National experts who oppose uncontrolled urban sprawl

2. Have each group develop a written statement arguing from its perspective for or against the control of urban sprawl.

SESSION THREE

1. Stage a debate. (You decide whether rules of formal debate will be followed.) Have each group select a spokesperson. Alternate between groups that favor and oppose control of urban sprawl and have each group present its prepared statement to the class. The groups who are not presenting can be the audience.
2. After the presentations, encourage questions and rebuttal. Again, alternate between the two sides of the issue.

SESSION FOUR

1. Explain that urbanization is consuming agricultural land at almost 2 million acres a year in the United States. Between 1992 and 2003, more than 1 million acres in California were removed from agricultural use due to urban development. That averages about 92,725 acres or about 145 square miles annually.
2. Introduce and present the following problem-solving model. Display in a visible place or have students record the steps for future use.
 - Define the problem
 - List possible solutions to the problem
 - Evaluate the positive and negative effects (tradeoffs) of each alternative
 - Select the best solution
 - Justify the selected solution
3. Using the chalkboard or overhead projector, develop with the class a clear statement of the problem. Ask:
 - What factors are promoting the urbanization of agricultural land in Chino Valley?
 - Now that we have defined the problem, what is the next step in solving this problem? (*To identify and list possible solutions.*)
 - What solution was created in Chino to save agricultural land? Is this the only possible solution? (*no*)
4. Share with students the ideas in the Supporting Information. Have students create a list of alternative recommendations that a zoning board could use. List in a visible place. Include "do nothing," if it is not suggested.

5. Group the alternatives listed into two categories: 1) those which involve governmental intervention and 2) those which involve voluntary actions.
6. Divide the class into as many groups of zoning officials as there are alternatives. Each group is to develop and analyze pros and cons (trade-offs) of each alternative.
7. After the analysis, each group discusses all alternatives. Have each group choose a solution, develop a justification, and prepare a two-minute presentation of its solution for the class at the next session.

SESSION FIVE

1. Before the presentations, advise groups to listen carefully to each group's alternative, solution and justification. Have them consider the procedures required to put the solutions into effect.
2. Have each group present its solutions.
3. Have the entire class vote for the best solution by raising hands. After a brief discussion, have each student secretly vote by writing the preferred solution on a slip of paper. Have students total their votes. Discuss the difference in the two votes. Explain that the secret vote is similar to the action of voters at the polls.
4. Finally, have students think of situations in their own areas that are or have been similar to the one described in the case study. How are the land-use conflicts being resolved at home? With what results? Have students write concluding statements of their positions on resolving urban sprawl in their own area.

EVALUATION OPTIONS

1. The thoughtfulness and thoroughness of students' oral and written responses to the problems posed in this lesson can be the basis for evaluation. How well do students understand this problem? Do they appreciate the fact that solutions exist beyond such obvious solutions as leaving the land as it is or using the land totally for development? Can they apply the strategies they have learned to new situations?
2. Have students fold a piece of paper in half. On the left side, have them identify three pressures on agricultural land near cities and discuss the reasons for these pressures. On the right side, have them identify two alternatives for each of the pressures identified on the left side.

Under the pressures and alternatives have students pick one issue concerning agricultural land and write at least three sentences to summarize each of the opinions of two sides (for and against). Have them describe what each of the sides might say in support of its beliefs.

EXTENSIONS AND VARIATIONS

1. Use the attached **Decision Matrix** instead of the problem-solving model. Discuss reasons, other than economic or political ones, to make wise land choices. For example, are there social or aesthetic reasons?
2. Recast this activity into a simulation game. Have students play roles of parties representing the alternatives for land use of the urban fringe. Have students present their arguments to an "arbitration panel" that hears each argument and then renders a decision.

PRESSURES	ALTERNATIVES
	1. ----- 2.
	1. ----- 2.
	1. ----- 2.

3. Invite a professional planner, realtor, county extension agent, or county commissioner to discuss the issues raised in this case study. If a local college or university has an urban planning school, take a field trip. Advise the guest speaker(s) of the issues in advance.
4. Invite a land developer to visit your class to talk about local land use issues. Invite a farmer who lives on the urban fringe to visit your class the following day for another perspective. Encourage students to discuss with the farmer how he/she feels about these issues.
5. For more extensive study, have your class consider the following issues.
 - **Zoning laws** - What zoning laws affect agricultural producers in your state? What are the basics of zoning laws that change agricultural areas into other type of areas?

Discuss the following case. A farmer has a five-acre poultry ranch in California's San Joaquin Valley. The farm is in a zone that has recently had a change of designation. Now the farmer cannot sell the land as a poultry ranch. This zone change dramatically reduced the value of the land, since it is too small for any other profitable agricultural activity. It is still so far outside the city limits that it has no present value for urban usage. The zone change occurred just a few years before the farmer intended to retire. Analyze the economic,

social and political consequences of zoning policies from both the individual and societal perspectives.

- **Compare with other industrialized nations**
Compare the relative scarcity, uses and values of land in Japan with that of California. Japan is about the size of California, but has more than four times the population and far less arable land. How do the Japanese resolve the urban versus rural conflict? How does that affect their standard of living? Is Japan a role model for California or does it represent something to be avoided? How does the use of land in Japan compare with the land use in your students' state?

Compare the value of agricultural land in the United States with Europe. In Germany, France, Netherlands, and other European countries, the agricultural land is considered too valuable on which for anyone, including farmers, to live. Farmers live in the cities.

- **Water availability and rights** - In the western United States, one of the most important land issues is the use of water. Who has rights to it? How do we ration its usage among competing interests? Which usage takes priority?

A good case study is the use of water in Northern California and the California Aqueduct. Farmers in the north are losing critical irrigation water to urban areas of Southern California through the aqueduct. Politically, Southern California has two-thirds of the state's population and thereby, through state legislation, controls the state's water. Is this an example of the tyranny of the majority as described by Thomas Jefferson?

Another good case study can be found in the Edward's Aquifer in Texas, where agricultural water use is in conflict with the needs of urban areas. Controversy rages over who has rights to this underground water and the extent to which the state can control its private use. Other issues focus on the continuing availability of the water and the environmental effects of using the aquifer's water.

6. Encourage higher-level thinking skills through consideration of the following issues.

- **Value of land** - The value of land is determined by supply and demand. Land in urban settings can be worth \$100,000 or more an acre, but in farm settings, the value may be reduced to \$3,000 or less per acre. The difference in price suggests that society places much more value on developed land than farmland. For many reasons food is cheaper in this country than elsewhere on this planet. Where then is the driving need

to conserve farmland? Perhaps it is that certain commodities can be produced more cheaply on the lands already in production. Remind students that climate must be taken into consideration, since it may limit the growth of some agricultural commodities in certain geographical areas.

- **Comparative advantage** - What are the advantages of developing land or using it for agriculture? There is abundant arable land in this country. The loss of land in California can be made up in several ways. If the productivity of existing land were increased, farmers would not need additional land. The opening of marginal land would also increase the acreage available for agricultural purposes. Economically, the land around Chino, California, is now highly valued for urban use. Even with the necessity of expensive irrigation techniques and soil fertilization, it would be less costly to bring marginal land into production than to use the land around Chino for agriculture. Urbanization on less arable or marginal land, however, could also be considered.
- **Importance of agriculture** - This country is among the world's principal exporters of food, producing large agricultural surpluses. These surpluses can cause food prices to be so low that they drive down the value of farmland. When the industrial or commercial value of land is greater than farmland in the fringe area, market demand indicates that there might be more profitable uses for that land than farming. Is it possible that the reduction of food production might be offset by the economic gains from alternative uses of the land? Or, will taking so much farmland out of production result in significant increases in food prices and major decreases in U.S. exports? (Taking the land out of production affects the farmer and all the industries linked to agriculture, e.g., seed dealer, farm implement dealer, farm labor, and so on. The cost of the transition from a "production economy" to a "service economy" is complex.)

7. Have students learn about agricultural products and values in their area. Include information about number of jobs, income, taxes, and so on.

CREDITS

America's Heartland episode #209, segments **Preserving Precious Resources** and **The Middle Mountains**; episode #301, segments **A Tale of Two Ranches** and **Selling the Farm**; episode #406, segment **A Life Choice**. KVIE, Inc., 2006.

California Fact Sheet. Economic Research Service. United States Department of Agriculture. October 2008 update. <http://www.ers.usda.gov/Statefacts/CA.htm>

California Land Conservation Act of 1965, The Williamson Act Program. Division of Land Resource Protection. California Department of Conservation, 2007. <http://www.conservation.ca.gov/DLRP/lca/Pages/Index.aspx>

Farm Facts. Public Relations Department, American Farm Bureau Federation. 2007. www.fb.org.

HillsboroughWaterWorks. *Tampa Bay's Water Wars and An Agreement to Secure the Future*. <http://www.hillsboroughwaterworks.com/index.html>

National Resources Inventory (2003 edition), *Land Use*. Natural Resources Conservation Service, United States Department of Agriculture. <http://www.nrcs.usda.gov/technical/NRI/>

National Resources Inventory (Summary Report, 1997 NRI) *Table 1*, Natural Resources Conservation Service, United States Department of Agriculture. http://www.nrcs.usda.gov/technical/NRI/1997/summary_report/

ADDITIONAL RESOURCES

American Farmland Trust National Office, 1200 18th Street, NW, Suite 800, Washington DC 20036. (202) 331-7300. <http://www.farmland.org>

Berry, Wendell. *Gift of Good Land: Further Essays Cultural and Agricultural*. North Point Press. 1983. ISBN: 0865470529.

Berry, Wendell. *The Unsettling of America: Culture and Agriculture*. Sierra Club Books. 1996. ISBN: 0871568772.

California Fact Sheet. Economic Research Service. United States Department of Agriculture. October 2008 update. <http://www.ers.usda.gov/Statefacts/CA.htm>

California Land Conservation Act of 1965, The Williamson Act Program. Division of Land Resource Protection. California Department of Conservation, 2007. <http://www.conservation.ca.gov/DLRP/lca/Pages/Index.aspx>

Hanson, Victor David. *The Land Was Everything: Letters from an American Farmer*. Free Press. 2000. ISBN: 0684845016.

Krauter, Bob. *Farmland Loss is Real California Concern*. The Voice of Agriculture Views. American Farm Bureau Federation. February 28, 2000. <http://www.fb.org/views/focus/fo2000>

National Resources Inventory (2003 edition), *Land Use*. Natural Resources Conservation Service, United States Department of Agriculture.

<http://www.nrcs.usda.gov/technical/NRI/>

National Resources Inventory (Summary Report, 1997 NRI) *Table 1*, Natural Resources Conservation Service, United States Department of Agriculture. http://www.nrcs.usda.gov/technical/NRI/1997/summary_report/

Protecting Our Most Valuable Resources. American Farmland Trust; DeKalb, IL: AFT Publication; 2001.

Smart Growth Online. *Principles of Smart Growth. Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas* <http://www.smartgrowth.org/about/principles/principles.asp?prin=6>

WEB SITES

American Farm Bureau, <http://www.fb.org/> (accessed October 2008)

American Farmland Trust, <http://www.farmland.org> (accessed October 2008)

Economic Research Service. United States Department of Agriculture. <http://www.ers.usda.gov/> (accessed October 2008)

HillsboroughWaterWorks. Hillsborough County Board of County Commissioners. Tampa, Florida. <http://www.hillsboroughwaterworks.com/index.html> (accessed October 2008)

Local Government Guide to the Internet. Chapter 9. Land (includes more than 70 links to Web sites about local land use, land cover, planning and zoning, development, and associated federal agencies. http://www.rural.org/lgg/Ch9_Land.html (accessed October 2008)

National Agricultural Statistics Service, United States Department of Agriculture. <http://www.nass.usda.gov> (accessed October 2008)

National Resources Inventory. Natural Resources Conservation Service, United States Department of Agriculture. <http://www.nrcs.usda.gov/technical/NRI/> (accessed October 2008)

National Resources Conservation Service. United States Department of Agriculture. <http://www.nrcs.usda.gov/> (accessed October 2008)

United States Department of Agriculture, <http://www.usda.gov> (accessed October 2008)

Cows or Condos?

Located on the floor of a basin (plain), Los Angeles has consumed adjacent agricultural lands in its growth. The boundaries of the metropolitan area extend as much as 50 miles beyond the city limits. There is little available land that is level. As a result, conflicts over whether to preserve or develop open lands have become intense. What is happening in the Los Angeles region is a metaphor for what is happening throughout the United States and the world. As populations of cities grow, there is increasing pressure to convert productive farmland on the urban fringe to higher uses.

In Chino, 60 miles east of Los Angeles' central business district, people ask "Cows or Condos?" As you read this article, ask yourself the following two questions: 1) As urban pressures increase, do landowners have a right to develop and sell their land as they choose? 2) Should the government control how land is used?

The population of Los Angeles has expanded continuously during the past century. Much of the physical growth of the city has been horizontal. In earlier times, cities tended to grow vertically - in the height of buildings - because limited transportation prevented the city from spreading. The horizontal growth gives rise to the term "urban sprawl." In fact, many people claim that Los Angeles is a hundred suburbs in search of a city. This is because there has always been an ample supply of generally flat open land, often cropland, on the urban fringe.

As urban demands for land grew, farmers sold out for a profit and moved onto land located farther from the city. Several factors encouraged such movement. First, Los Angeles lies on a vast plain surrounded by mountains. Thus, farmers could always buy good farmland "farther out" to replace what they had sold.

Second, good transportation systems promoted both the growth of the city and the relocation of the farmers. Initially there were railroads, then paved roads, and finally freeways in 1939. All of these systems followed routes across the basin established by early native populations.

Third, California taxes land at its fair value or potential market value. Therefore, farms close to cities were often taxed at the high rates associated with houses or commercial buildings. High property taxes often make farms unprofitable.

Among the "farmers of the urban fringe" were dairymen, many of them Dutch immigrants who before World War II had established communities such as "Dairyland" and "Dairy Valley" in southern Los Angeles County. Between 1945 and 1970, as Los Angeles expanded beyond its city limits and became a metropolis, all of these farmers sold their land, often at huge profits, and moved their operations east of the city near the town of Chino.

The California Land Conservation (Williamson) Act was passed by the California Legislature in 1965. The Williamson Act has three fundamental purposes: agricultural land preservation, open space preservation, and efficient urban growth patterns (discourage discontinuous urban development patterns). It creates an arrangement whereby private landowners voluntarily restrict their land to agriculture and compatible open-space uses under 10-year rolling term contracts with counties and cities. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value. The Williamson Act stipulates that agricultural preserves (areas set aside by local governments for Williamson Act participation) should generally be at least 100 acres in size. The Chino Agricultural Preserve consists of about 14,000 acres (5,666 hectares).

The Chino Agricultural Preserve recently has come under increasing pressure to urbanize as Los Angeles' sprawl has extended 60 miles to the east. This has brought into focus many issues and varying points of view. The Chino Preserve is the last large, level and buildable parcel of land in the Los Angeles Basin. The value of this land has increased from \$4,000 an acre 15 years ago to more than \$90,000 an acre today. Despite these land costs, it is still possible to build and sell moderately priced homes (under \$200,000), since each house lot is a fraction of an acre.

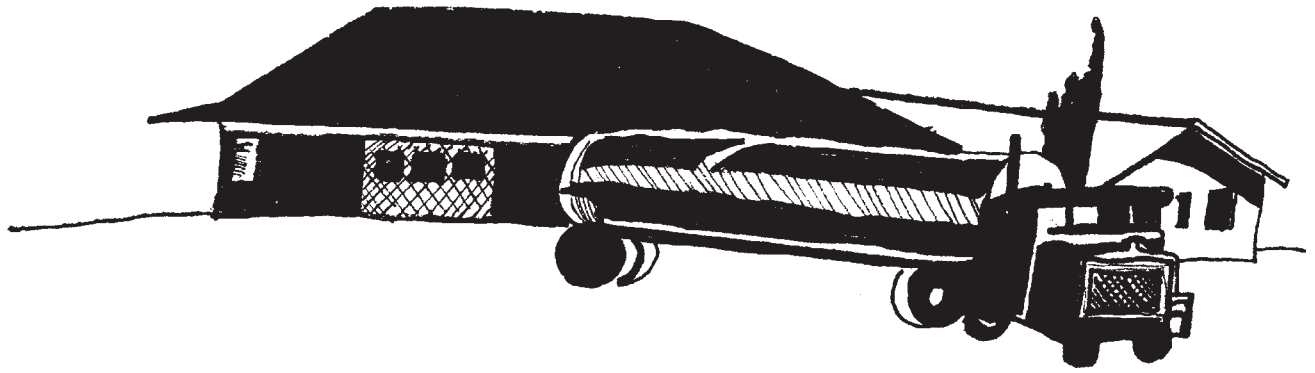


Figure 1 - A typical Chino Valley dairy farm is about 100 acres, or almost 41 hectares, in size. These farms use feed that is purchased elsewhere because there is no pastureland. Each farm contains at least one dwelling unit and a milking barn, as well as auxiliary structures.

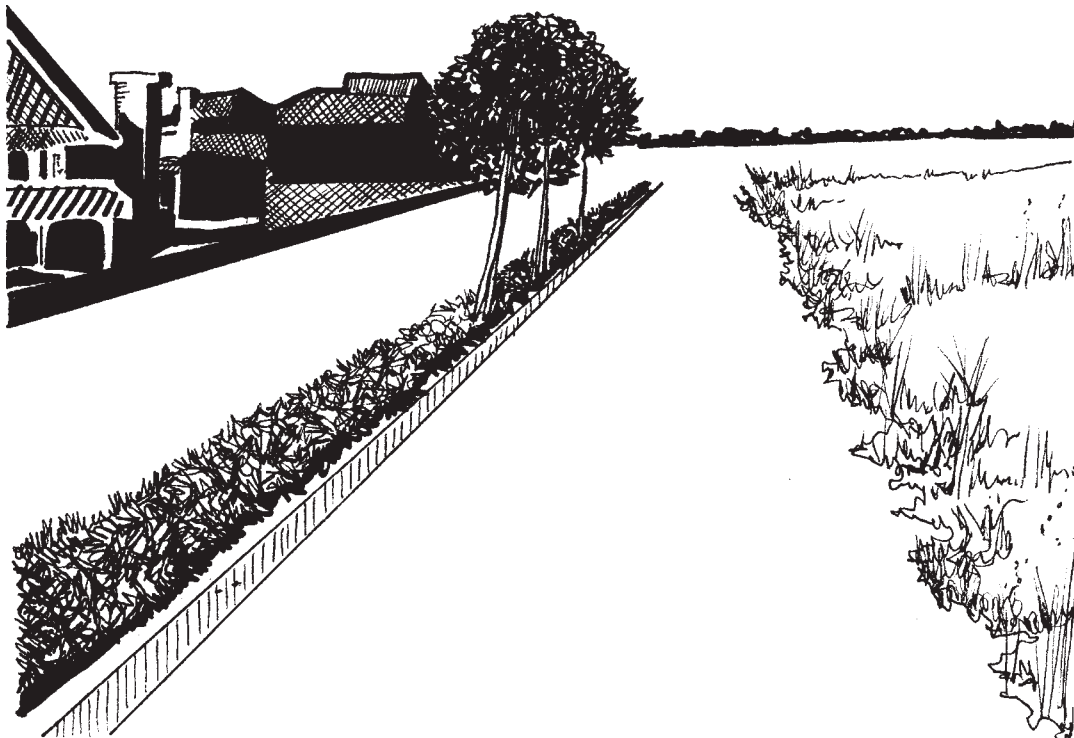


Figure 2 - The rural-urban interface. Here a standard two-lane rural road has been widened to accommodate increased traffic demands. This is representative of the idea that development of land to its potential use lowers average taxes. The opposite often is the case because the new population places much greater demands on local government, especially for such infrastructure as roads, water and sewage.



Figure 3 - Another farm falls to “progress.”

The Preserve is located within a region experiencing tremendous growth. Multilane highways near the Chino Preserve provide access to the entire basin. This is, after all, how milk is transported to market. Some of the farmers want to sell their land and retire with their profits. Many local residents fear that once some of the farmers sell, the entire Chino Preserve will eventually be lost to development. They worry that no significant open land will remain in the region. Some people fear increased pollution and other environmental stresses. Many people from urban areas, however, find dairying offensive because of the odors and pests it generates.



Figure 4 - The first phase of “Country Meadows.”

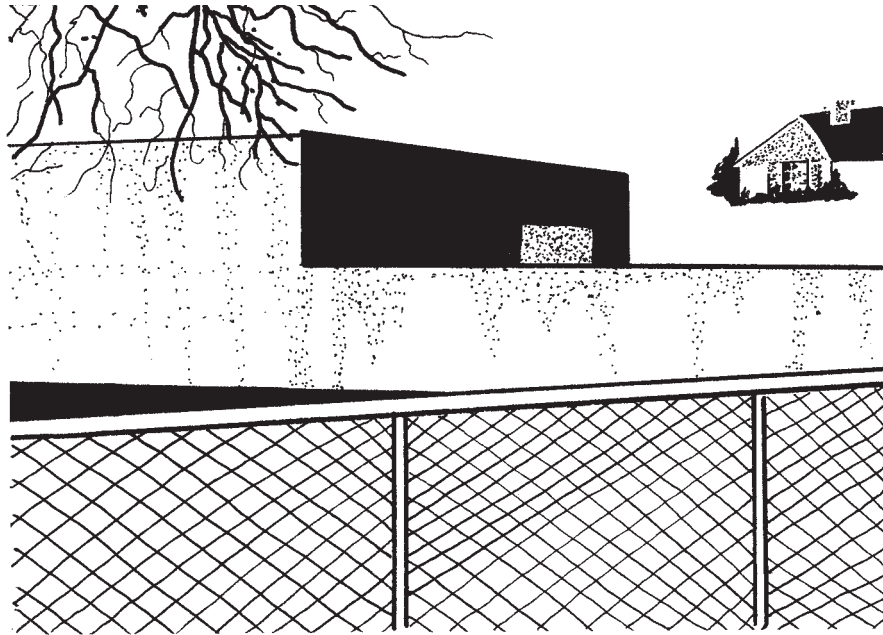


Figure 5 - Perhaps industrial development (even agricultural processing) is a desirable buffer.

American cities continue to grow. In ever-increasing numbers, Americans seek homes on the urban fringe. Issues such as those emerging in the Chino area have become the focus of discussion and debate throughout the United States. How can these issues be resolved and by whom? Is it simply a case of “Cows or Condos?” (The term “condominium” is used in this article primarily for literary effect. In reality, only a portion of the Chino Preserve is ever likely to be developed into condominiums. The greatest demand in the California housing market continues to be for single-family, detached dwellings.)

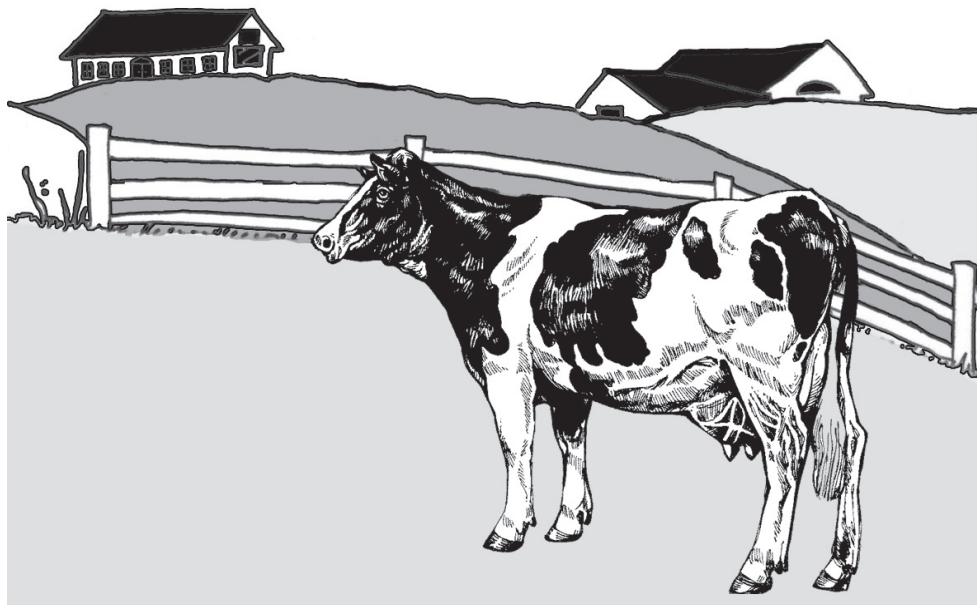
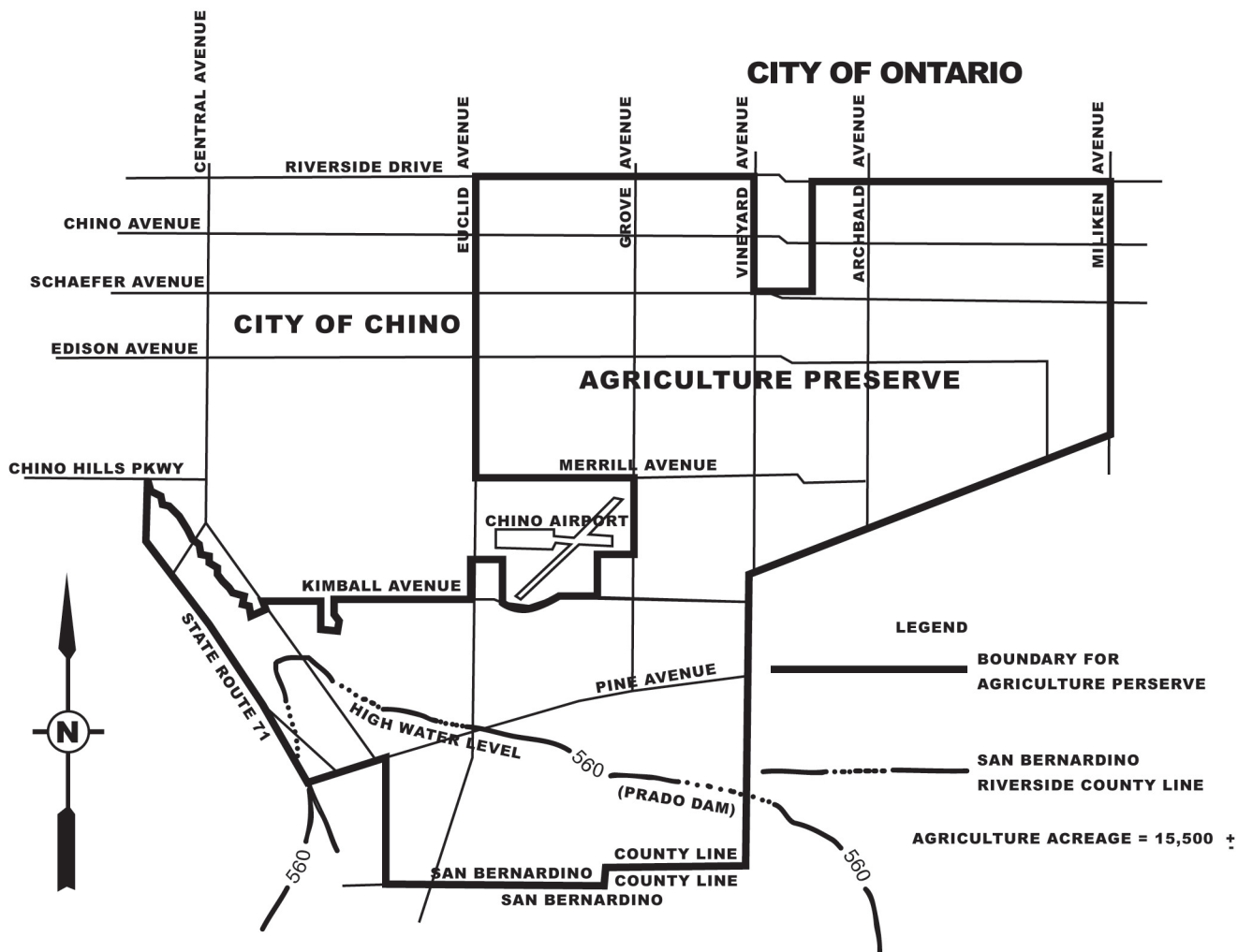
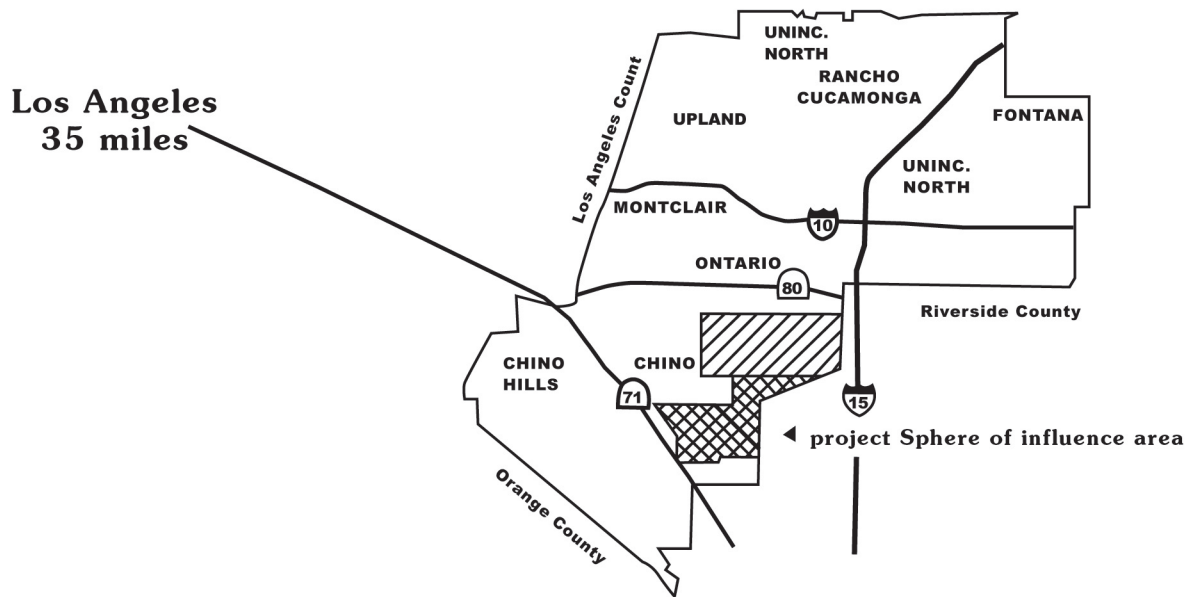


Figure 6 - How long will “country living” include, or tolerate, farms?

CITY OF CHINO SPHERE OF INFLUENCE GENERAL PLAN STUDY



COWS OR CONDOS? QUESTIONS

1. Explain why Los Angeles has tended to expand outward as its population has grown.
2. Why is land on the fringe of a city cheaper than land near the center?
3. What kinds of problems are created when people live farther from the city center?
4. Why is level land most desirable for development?
5. Under an agricultural preserve act, a farmer may ask the county government to “release” his land. The farmer must then pay whatever additional taxes would have been paid, if the land had been developed instead of placed into the preserve. Should the Chino farmers have the right to pull out of the Chino Preserve if they desire? Why or why not?
6. Assume you support the idea of an agricultural preserve. If you are a farmer, how do you respond to the historical and economic arguments to develop the region?
7. Should owners of private property always be permitted to develop land to its greatest and best use as determined by them? Should government determine how privately owned land is to be used? Why?
 - A. List the reasons why individuals should be able to do with their land what they want.
 - B. List the reasons why government should be able to determine how private land is used.
 - C. Write an introductory sentence stating your position on the issue raised by the questions.
 - D. Use the information from A and B above to support your position.
 - E. Use the information generated from questions 1-6 to rebut your reasons why individuals and government should not be able to determine how private land is used.
 - F. Write a concluding sentence.
8. Is the potential use always the best use? Explain.



DECISION MATRIX

EFFECTS OF THE WILLIAMSON ACT

Factors	<u>Impact</u> x <u>Weight</u> = <u>Total</u>
Security of food supply	
Total economic value to the state	
Total employment provided	
Skill level and wages of workers	
Diversity to the state economy	
Tax revenues	
Cost of food	
Promotion of orderly urban growth	
Preservation of open spaces	
Intensity of water usage	
Environmental impact	
Preservation of tradition	
(blanks for student use)	

_____	TOTAL SCORE _____

NOTES

1. The decision matrix is most useful in analyzing and comparing alternative courses of action, although here it is being used to analyze a single course of action.
2. For a simplistic assessment, use a +, -, or leave blank to rate the effect of the proposed course of action on each identified factor.
3. Mild weighting can be achieved by using double or triple values (++, ---, and so on). This is similar to the survey method which uses a sliding scale from “Strongly Agree” to “Strongly Disagree,” with some differentiation in between.
4. More complex weighting can be achieved by multiplying the assessment by a weighting factor. The weighted values are then summed in the “Total” column.
5. Be advised that difficulties will be encountered in determining the weighting. Usually the effect of the factors is a fairly objective process, whereas the weight of each specific factor is a subjective evaluation, dependent upon each individual’s value system and experience base. This portion of the exercise emphasizes that there are VALID differences of opinion on most social issues, and discussion of different values aids students in learning empathy and respect for opinions that differ from their own.

California Land Conservation Act (The Williamson Act)

In the 1950s and early 1960s, California's population exploded as the nation's economy surged following World War II. Cities grew as never before, spilling across the landscape. Land was needed for houses. As land values skyrocketed, so did property taxes. Hardest hit were the state's farmers and ranchers. An estimated 1 million acres of California's highly productive farm and grazing land were lost to leapfrog development, urban sprawl, and high taxes during this period.

To protect its farmers and farmland from the pressures of speculative land values, in 1965, the California Legislature passed the California Land Conservation Act. More commonly known by the surname of its author, former Assemblyman John Williamson, The Williamson Act has been serving the conservation of California's agricultural and open space lands for more than 40 years.

What is the Williamson Act?

The Williamson Act is a voluntary land conservation program that is administered by counties and cities, with guidance and technical assistance from the California Department of Conservation. The Act has several related purposes:

- to preserve farmland for a secure food supply for the state and nation, and for future generations;
- to maintain agriculture's contribution to local and state economic health;
- to provide economic relief to tax-burdened farmers and ranchers;
- to promote orderly city growth, and to discourage leapfrog development and premature loss of farmland; and
- to preserve open space for its scenic, social, aesthetic, and wildlife values.

How Does The Williamson Act Work?

At the heart of the Williamson Act is a contract. The Act enables cities and counties to offer reduced property taxes to agricultural and open space landowners. By signing a contract with their county or city, the landowner is taxed based on the value of his or her land for agricultural or open space uses, as opposed to urban uses. In return, the landowner commits to keeping the contracted land in open space or agricultural uses for at least 10 years. Contracts may be terminated by either party, but unless terminated, they automatically renew every year. If terminated, the contract "winds down" over the remaining 10-year term, with taxes gradually rising back to their full rate. Once the contract has ended, the land is no longer restricted to agricultural or open space uses.

Counties and cities lose property tax revenue when land is placed under a Williamson Act contract. To help compensate for this loss, the state pays each county and city that participates in the Williamson Act a "subvention" payment that is based on how much acreage and the type of land that is under contract.

Why Does California Need the Williamson Act?

California's agriculture is not equaled anywhere on earth in productivity, size and diversity. By a large margin, California is the nation's leading agricultural producing state. More than 250 different crops are grown in California, including most of the nation's fresh fruits and vegetables. The sales of these crops totaled \$36.6 billion in 2007, breaking the previous record of \$32.4 billion in 2005 and escalating 59 percent over the 2000 value of \$23 billion. Nine of the states

commodities account for more than \$1 billion in sales. The total effect on the state's economy in terms of jobs, processing, shipping, and so forth is estimated to be as high as \$230 billion. This bounty of production is due to California's warm climate, efficient farming practices, normally reliable supply of water, and most importantly, its rich soil.

But the state is growing at a tremendous rate. In 1950, the state's population was 10 million, and then grew significantly to 23.6 million by 1980, almost 30 million by 1990, and 33.9 million by 2000, according to the U.S. Census. According to population estimates by the California Department of Revenue, the state's population reached 37.8 million in mid-2007. Should the state's population reach 40 million by 2010, California's average population growth will have been 500,000 people per year for the 60-year period since 1950. As a result, urban growth statewide is mushrooming. This growth is consuming some of the state's best agricultural land, lands with soils that took thousands of years to make. Between 1984 and 1997, the Natural Resources Conservation Service estimated that the state lost 1.7 million acres of agricultural land, mostly to urban growth. The Williamson Act authorizes California's statewide land conservation program that helps resist the pressures of urban growth and to keep the state's most valuable farm and rangeland in production.

Has the Act Worked?

The Land Conservation Act Program has remained stable and effective as a mechanism for protecting agricultural and open space land from premature and unnecessary urban development. Participation in the program has been steady statewide since the early 1980s. Every indication points to an indefinite continuation of this level of participation. The Williamson Act is popular. As of 2008, about 16.6 million acres were enrolled under the Williamson Act contract statewide, representing more than half of the state's total farmland and ranchland and nearly one-third of all privately owned land in California. Another 820,000 acres has been enrolled in what some call the "Super Williamson Act," which provides even greater tax breaks for 20 years of protection from development. One-third (5.7 million acres) of the Williamson Act contracted acreage at that time was prime agricultural land; the remainder was open space, or non-prime land. About half of the state's prime farmland is under contract.

The preservation of land for open space has merits that are less tangible than the significance of agricultural land as an economic resource. Open space lands, which include California's oak savanna, offer immeasurable scenic and recreational values. Perhaps just as important, open space lands form portions of upland watersheds whose protection from unnecessary subdivision and development is important to water and stream quality, wildlife habitat, downstream flood management, and provision of buffers between agricultural and other uses. The benefits of the Land Conservation Act to protect open space land are of considerable significance, and not necessarily less than the benefits of protecting prime lands.

According to the local planners and landowners surveyed by the California Department of Conservation, the Land Conservation Act offers the only means for local governments to designate large, contiguous areas as farming districts (agricultural preserves). Almost unanimously, planners felt that general plan designations and zoning were inadequate by themselves. When combined with enforceable contractual restrictions, agricultural preserves are not as vulnerable as general plans to short-term shifts in local political economy. Since its passage in 1965, the Williamson Act has been effective to encourage orderly city growth and limit leapfrog development.